REMARKS/ARGUMENTS

Reconsideration and continued examination of the above-identified application are respectfully requested.

The amendment to the claims further define what applicants regard as their invention and/or are editorial in nature. In particular, claim 44 has been amended to recite that the substituent R^{12} is not hydrogen and the substituent R^{13} is not a hydroxy radical. Full support for the amendment can be found in the claims as originally filed as well as in the present specification, for instance, at pages 9 and 10. This amendment does not raise any new questions of patentability since the Examiner has already examined claim 44 with a broader scope. Furthermore, this amendment does not necessitate any further searching on the part of the Examiner since again, claim 44 has already been examined with a broader scope. Also, the amendment places the application in immediate condition for allowance or at the very least, in a better condition for appeal. Finally, the amendment is supported as set forth above. Accordingly, for these reasons, this amendment should be entered and considered.

At page 1 of the Office Action, the Examiner indicates that claims 1, 4-43, and 52-69 are allowed. The applicants and the undersigned appreciate the Examiner's indication that these claims have been allowed.

At page 2 of the Office Action, the Examiner rejects claims 44-51 under 35 U.S.C. §102(b) as being anticipated by WO 99/05209. The Examiner asserts that this PCT publication inherently shows the end groups set forth in claims 44-51 of the present application. For the following reasons, this rejection is respectfully traversed.

Claim 44 of the present application recites a thermally decomposable polyhydroxyalkanoate having at least one of the terminal end groups selected from: a) -CO-CH=CR^9R^{10}; b) -OR^{11}; c) -$COOR^{12}$, d) -COR^{13}; or e) -O^-M^+, wherein R^9, R^{10}, R^{11}, R^{12}, or R^{13} which are the same or different, represents saturated or unsaturated hydrocarbon radicals, halo- or hydroxy- substituted radicals, hydroxy radicals, nitrogen-substituted radicals, oxygen-substituted radicals, or a hydrogen atom, with the proviso that R^{11} and R^{12} are not a hydrogen atom, and R^{13} is not a hydroxyl radical and M^+ is a counter ion. The Examiner will note that with respect to claim 44, none of the terminal end groups cover an unsubstituted hydroxyl end group or a carboxylic acid end group. In other words, none of the terminal end groups as set forth in claim 44 cover a -OH or a -CO-OH. This is important in view of the discussion below.

WO 99/05209 only teaches PHAs having a carboxylic acid and a hydroxyl terminal end groups. Polyhydroxyalkanoate polymers produced via microbiological or synthetic routes have a terminal hydroxyl group at one end of the polymer chain and a carboxylic acid at the other end of the chain. This is discussed in many of the references cited in the patent application. The generic PHA structure description on page 6, line 9 of WO 99/05209 shows the PHA repeat unit which to maintain stoichiometry automatically has hydroxyl and carboxylic acid end groups as shown below.

H - OCR1R2 (CR3R4) n CO - OH

Thus, the claimed invention is distinct from WO 99/05209. It is important for the Examiner to appreciate that although WO 99/05209, at page 11, line 26, mentions PHAs having alkenoic acid groups, the alkenoic acid groups refer to unsaturated groups in the side chains of the polymer and

they are not terminal end groups. Further, each of the examples in WO 99/05209 forms or uses PHAs with hydroxyl and carboxylic acid groups as the terminal end groups. The present inventors should know since they are with the same assignee, Metabolix, Inc., as the cited reference. Thus, the present inventors disagree with the Examiner's inherency position. The Examiner has not shown by technical analysis or technical theory why he has concluded that the PHAs inherently have the terminal end groups of claim 44. No method is described in WO 99/05209 that would produce the terminal end groups of claim 44.

Furthermore, claims 45-51 are directly dependent on claim 44. Therefore, the reasons set forth above with respect to the patentability of claim 44 would apply equally here. Accordingly, the rejection under 35 U.S.C. §102(b) over WO 99/05209 should be withdrawn.

The Examiner is strongly encouraged to contact the undersigned by telephone should there be any remaining questions. The inventors are more than willing to participate in order to address any of the Examiner's questions regarding the chemistry of the cited art and claim 44.

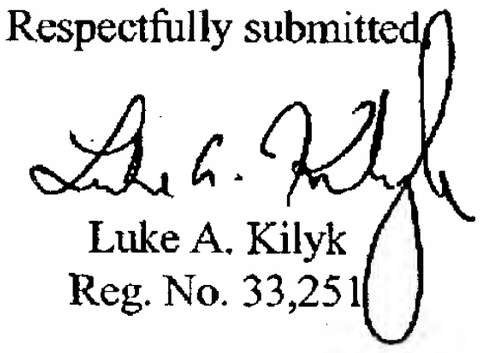
CONCLUSION

In view of the foregoing remarks, the applicants respectfully request reconsideration of this application and the timely allowance of the pending claims.

If there are any other fees due in connection with the filing of this response, please charge the fees to Deposit Account No. 50-0925. If a fee is required for an extension of time under 37 C.F.R. §1.136 not accounted for above, such extension is requested and should also be charged to

said Deposit Account.

Respectfully submitted,



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